

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,903,972 B2
DATED : June 7, 2005
INVENTOR(S) : Lasser et al.

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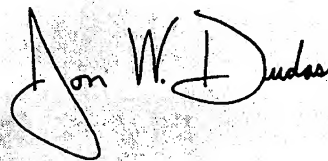
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

The title page, showing illustrative figures, should be deleted and substitute therefore the attached title page.

Delete drawing sheets 1-4 and substitute therefore the drawing sheet consisting of FIGS. 1-9 as shown on the attached sheets.

Signed and Sealed this

First Day of November, 2005

A handwritten signature in black ink, reading "Jon W. Dudas". The signature is stylized, with a large loop for the "J" and a cursive "Dudas".

JON W. DUDAS
Director of the United States Patent and Trademark Office

(12) **United States Patent**
Lasser et al.

(10) Patent No.: **US 6,903,972 B2**
(45) Date of Patent: **Jun. 7, 2005**

(54) **DIFFERENT METHODS APPLIED FOR ARCHIVING DATA ACCORDING TO THEIR DESIRED LIFETIME**

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(73) Assignee: **M-Systems Flash Disk Pioneers Ltd., Kfar Saba (IL)**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/735,667**

(22) Filed: **Dec. 16, 2003**

(65) **Prior Publication Data**

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Related U.S. Application Data

(60) Provisional application No. 60/492,206, filed on Jul. 30, 2003.

(51) Int. Cl.⁷ **G11C 16/04**

(52) U.S. Cl. **365/185.18; 365/185.19; 365/185.24; 711/136; 711/156; 711/160**

(58) Field of Search **711/136, 156, 711/160; 365/185.18, 185.19, 185.24**

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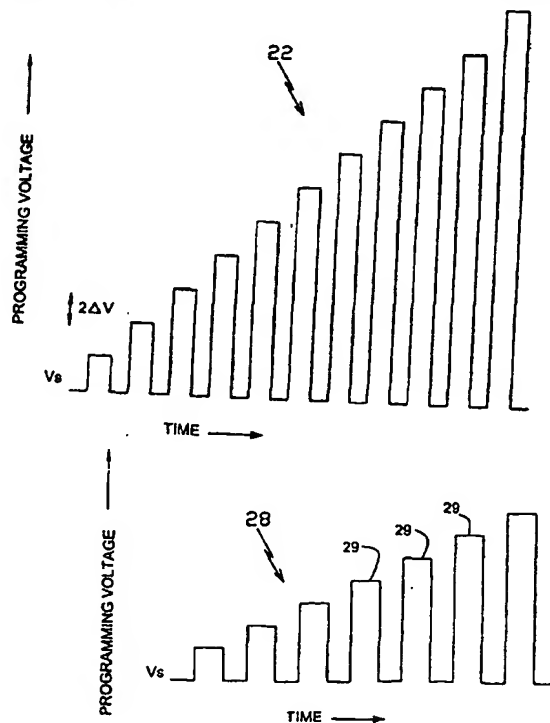
Primary Examiner—Van Thu Nguyen

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(57) **ABSTRACT**

A method and system for archiving data. The data are classified according to their desired lifetime and then archived in a memory using a storage method whose reliability is in accordance with the desired lifetime. For example, when storing data in the cells of an EPROM, short-term data could be archived using larger programming voltage pulse increments than for long-term data, using a lower target threshold voltage than for long-term data, using wider programming voltage pulses than for long-term data, using higher starting programming voltages than for long-term data, using fewer programming voltage pulses than for long term data, using lower maximum programming voltages than for long term data, or using more levels per cell than for long-term data.

10 Claims, 4 Drawing Sheets

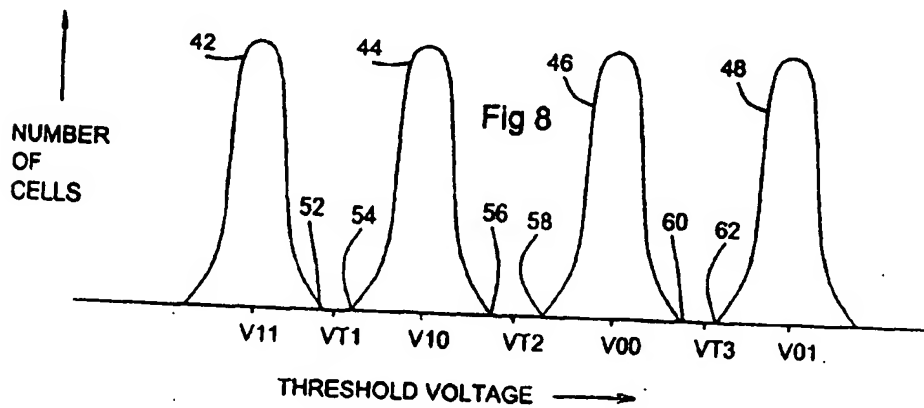
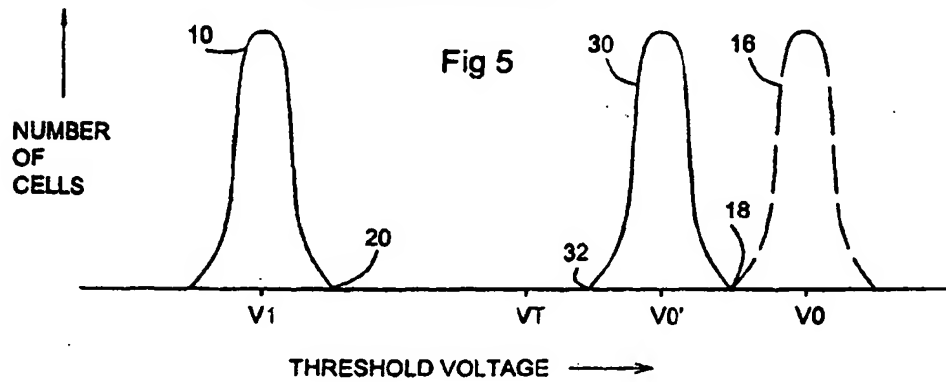
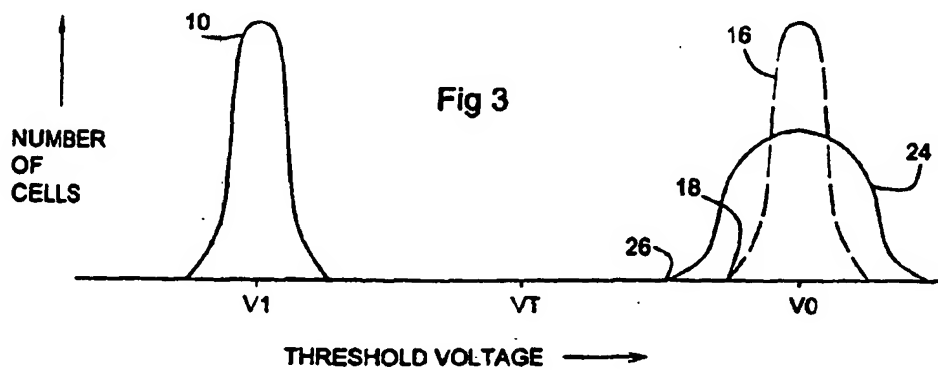
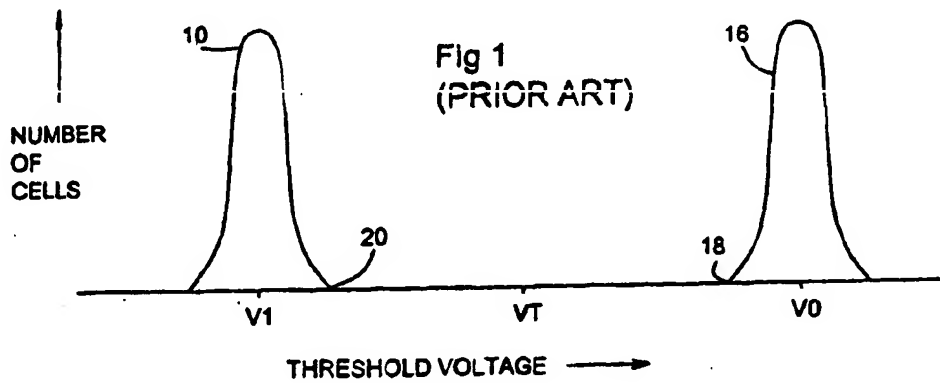


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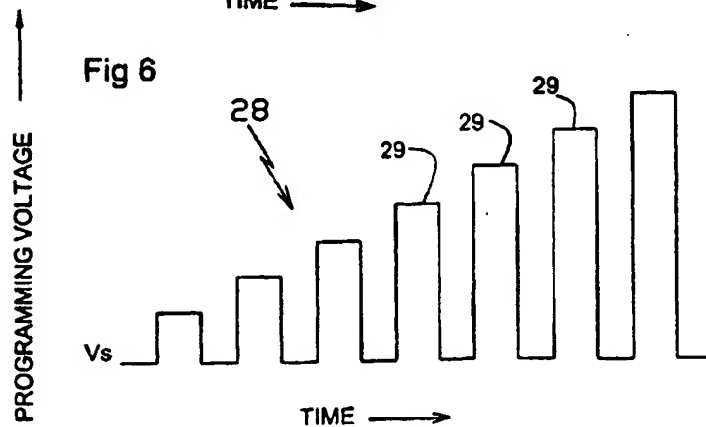
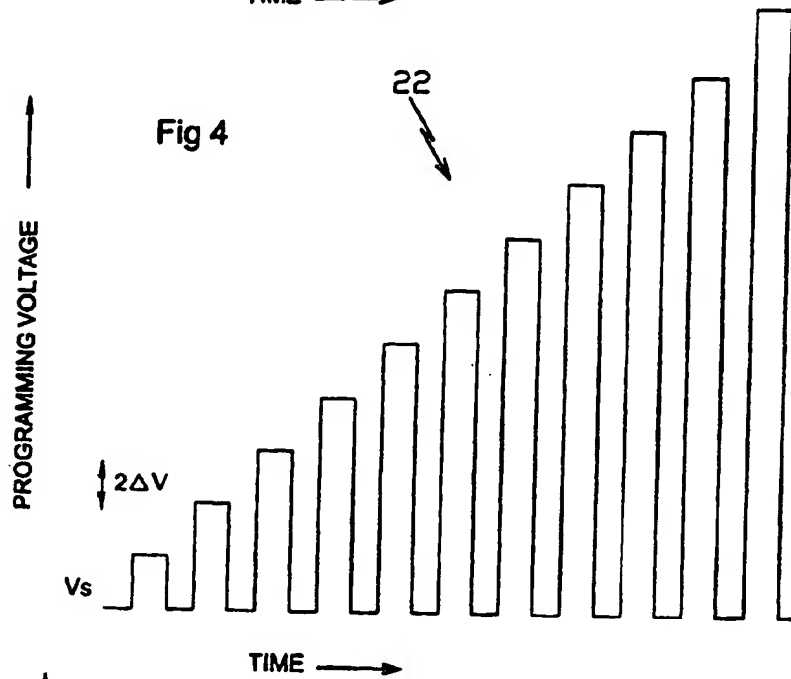
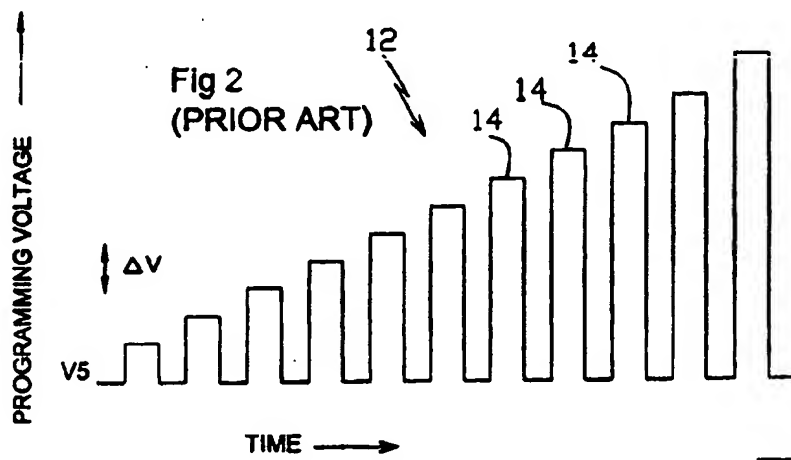


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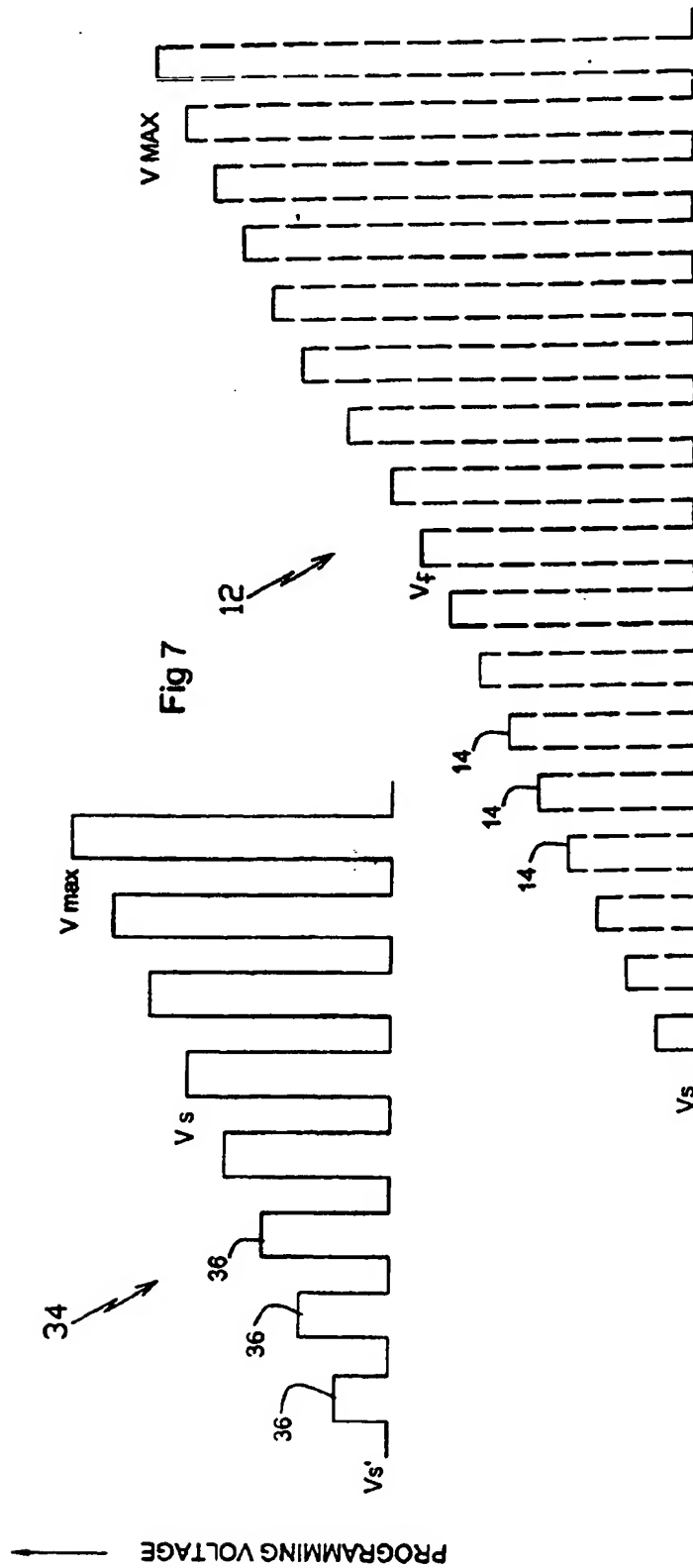


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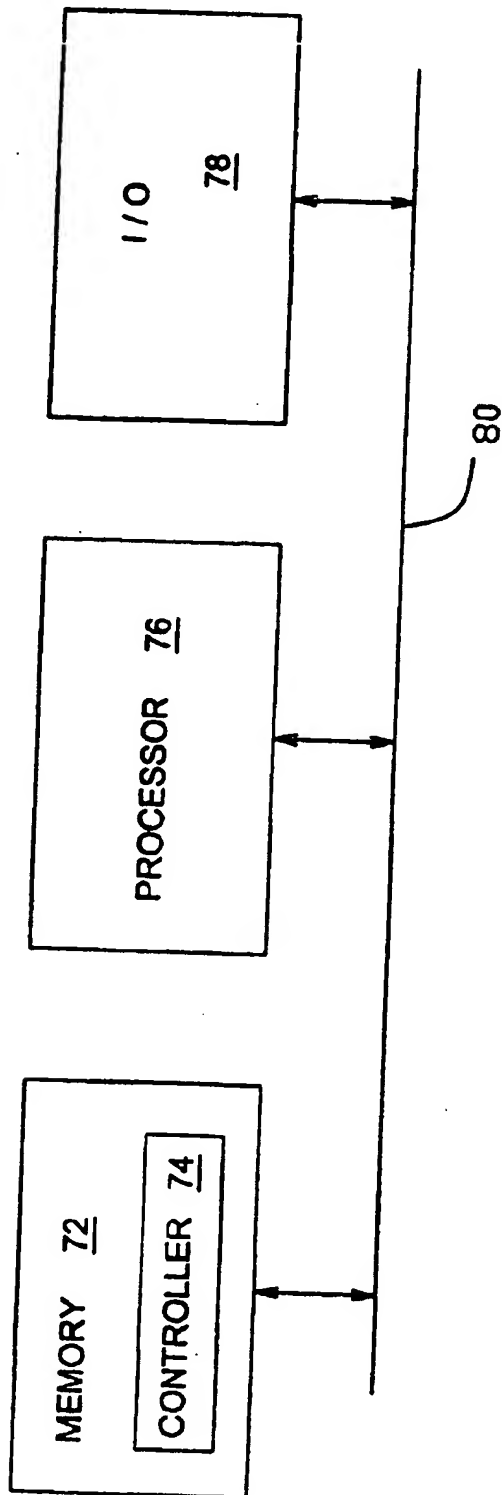


Fig 9